LIGHT SHUTTLE

USER GUIDE

22587A

Introduction

Hello, and thank you for choosing the Light Shuttle tanning unit. The Light Shuttle represents one of the finest tanning units in the industry. Designed for durability and tanning efficiency, the Light Shuttle should exceed your expectations for ease of use and operation.

Please take the time now to read through this user manual in order to familiarize yourself with the unit before assembly and operation. The manual has been carefully written to ensure that you, the user, will have all the information you need to set up and operate the Light Shuttle. However, a team of trained service personnel at ETS, Inc. is available to assist you with any questions or problems you may encounter. Feel free to contact them at the number on the back of this user manual.

We hope you enjoy your experience with the Light Shuttle tanning system.

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Safety Information

LABELING NOTICE: Labels are affixed on all systems to inform the user of possible dangers. Regulations are stated in 21 CFR, Section 1040.20, and require that all products manufactured after September 8, 1986 which use sunlamps must display the following:

DANGER Ultraviolet radiation. Follow instructions. Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature aging of the skin and skin cancer. WEAR PROTECTIVE EYEWEAR; FAILURE TO MAY RESULT IN SEVERE BURNS OR LONGTERM INJURY TO THE EYES. Medications or cosmetics may increase your sensitivity to the ultraviolet radiation. Consult a physician before using sunlamp if you are using medications or have a history of skin problems or believe yourself especially sensitive to sunlight. If you do not tan in the sun, you are unlikely to tan from the use of this product.

WARNING: Do not use without filter glass panels in place. To use, sit down and move chair forward. Always maintain at least 10 inches (25.4 centimeters) between your face and the face tanners. Other positions may result in overexposure to parts of your body. All persons in the room should wear protective eyewear when lamps are on. Recommended eyewear: Provided eyeshields (Lucas Products Super Sunnies or Intrexco No, 5635/1) or equivalent eyewear as defined under 21 CFR 1040.20. Other types of eyewear may not provide adequate protection.

RECOMMENDED EXPOSURE TIMES IN MINUTES		MAXIMUM EXPOSURE TIME IS 10 MINUTES				
Skin Type:		Level 1/Week 1 1st-3rd Sessions	Level 2	Level 3	Level 4	Subsequent Maximum
I Sensitive Skin	(Burns easily and severely and does not tan.)	NOT RECOMMENDED FOR TANNING				
II Light	(Burns easily and severely and tans minimally.)	2	4	6	8	10
III Normal	(Burns moderately and tans average.)	3	5	7	10	10
IV Dark	(Burns minimally, tans easily and above average.)	4	6	8	10	10

Untanned persons should not tan on consecutive days during their first week of tanning. Never tan more than once a day. Tanning normally appears after the first few sessions and maximizes after approximately four weeks. Tan once or twice per week thereafter to maintain appearance. Persons already having a base tan may begin at advanced levels corresponding to the extent of their base tan.

ONLY THE FOLLOWING LAMPS HAVE BEEN CERTIFIED FOR USE IN THIS EQUIPMENT:

Facial Lamp - KBL 2000, Heraeus Model BQ 2837 Z4

Hand Lamp - KBL 400, Heraeus Model BQ 407 Z4

CAUTION: Disconnect power before attempting to clean, relamp, or engage in the maintenance of this product.

THIS UNIT MUST BE EARTH GROUNDED.

THIS PRODUCT IS IN CONFORMITY WITH PERFORMANCE STANDARDS FOR SUNLAMP PRODUCTS UNDER 21 CFR PART 1040.20

Pre-Installation Considerations

Before you install your sunbed, you should observe the following pre-installation considerations.

- READ ALL INSTRUCTIONS BEFORE OPERATING UNIT.

- The **Light Shuttle** requires a dedicated **208V AC, 3-phase** circuit capable of providing **40 Amps per phase**. This unit must be hard-wired directly to a junction box using the armored cable provided. The unit must be earth grounded.

- This unit must be used in an enclosed area so passersby will be shielded from the tanning light.

- Make sure the room in which you intend to use your sunbed is well ventilated. Air from the room is used to cool the unit. A poorly ventilated room may cause the unit to become overheated and cause undesirable operation.

- Your sunbed is designed to operate in an ambient room temperature of 80°F maximum and 70% relative humidity. Excessive humidity and/or room temperature may cause decreased tanning power and tanning performance.

- Place the Light Shuttle no closer than 6" from any wall. Make sure that curtains, drapes, and other room furnishings do not obstruct the airflow into or out of the unit.

- Due to the size and weight of the unit, proper installation requires four people. Plan to have a few helpers assist you.

IMPORTANT! *Voltage must be* ***below 230V AC*** *or may require a Buck Booster, contact ETS, Inc. service at the number on the back of this user manual. Use of a voltage source above 230V AC may reduce the life of some components in your sunbed.*

Getting Started

Visual Inspection

Note! The crate your sunbed arrived in is reusable if you need to transport the unit in the future.

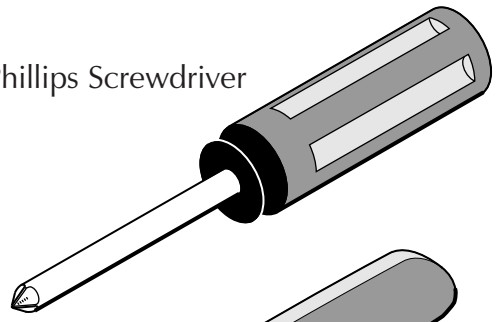
After opening the crate and unwrapping all parts (refer to the section on *Unpacking*), inspect them for any visible damage which may have occurred during shipping. Note any damage and contact customer service.

Record the serial number of the unit, located on the back of the unit near the power cord, in the area provided on the back of this manual. This information will be required when you call customer service.

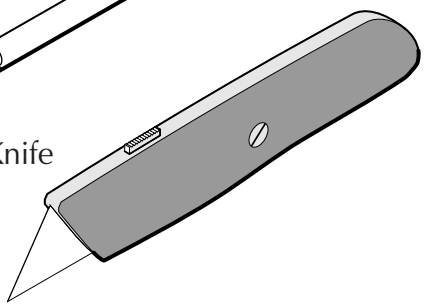
Tools Needed

Before you begin assembling your Light Shuttle, you will need to gather a few tools.

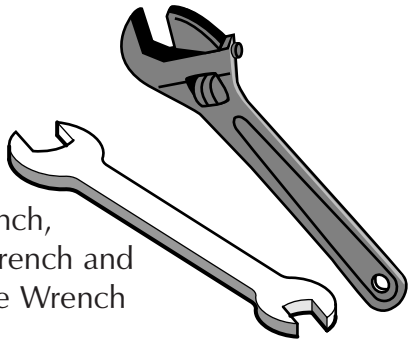
#2 Phillips Screwdriver



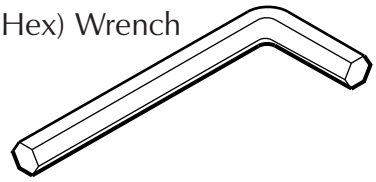
Utility Knife



1/2" Wrench,
17mm Wrench and
Adjustable Wrench



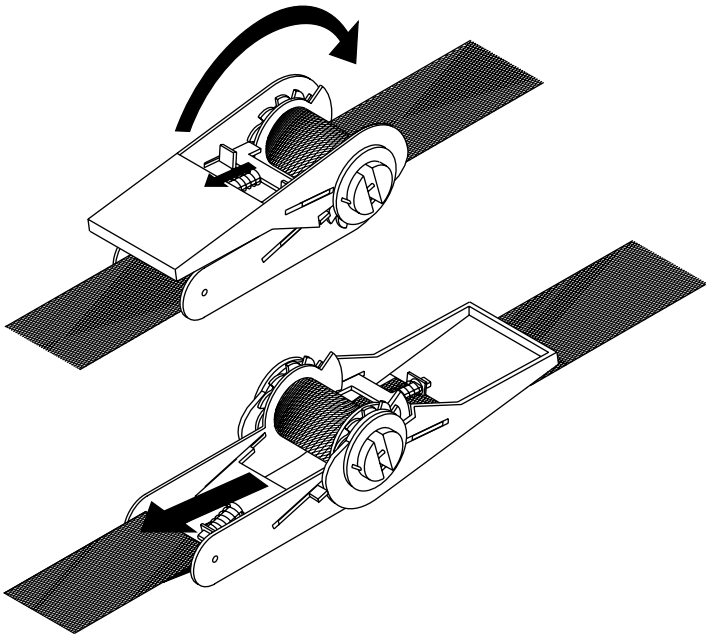
6mm Allen (Hex) Wrench



Setup

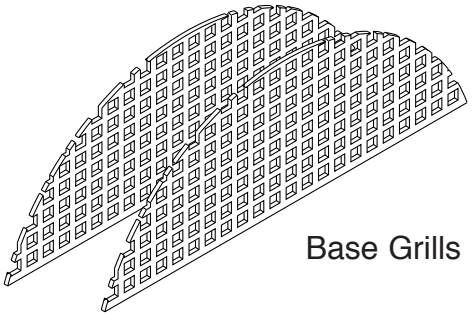
Unpacking

Your Light Shuttle is delivered as a tightly packed unit. This section will help you identify the parts of the unit as they are unpacked. Refer back to this section if you ever need to move the Light Shuttle.



Loosen the cargo straps that hold the unit in place. Follow the illustrations at right if you have difficulty. The straps may then be removed and placed aside. Next, cut the plastic cover that is over the entire unit. By cutting carefully around the base of the unit you can use this plastic "bag" to cover the Light Shuttle when needed.

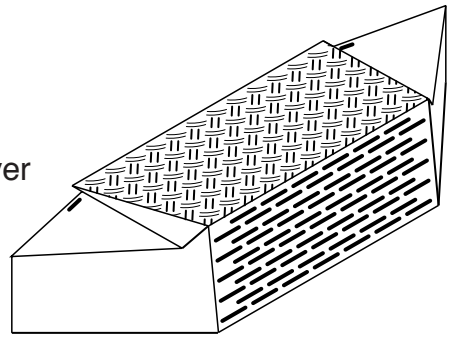
The seat is leaning up against the main unit. Put it in an out of the way place to keep it from being damaged. Now, unwrap the main standing unit. In the middle of the base is a bundle of accessories strapped together with plastic strapping. Cut the strapping and remove the desiccator pillows (for moisture absorption) taped to the top of the stack of bubble-wrapped accessories.



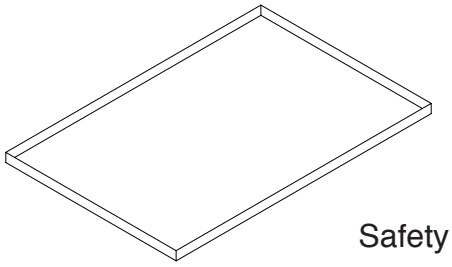
Base Grills

On top are the two base grills. Next is the large, bevelled ballast cover. Then remove the seat base. The seat base is rather heavy and should be lifted by two people. Under the seat base is the safety tray. Unwrap all parts and set them aside for later.

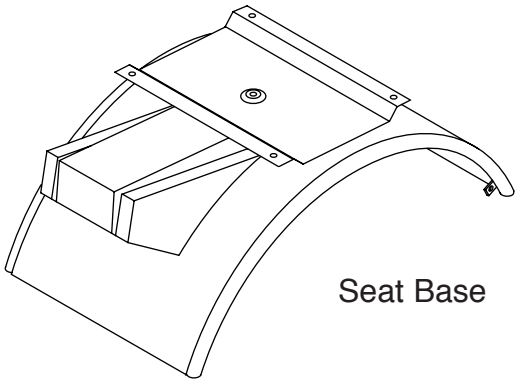
Ballast Cover



The base of the Light Shuttle is kept from shifting by three wooden blocks. Use a Torx T-25 screwdriver bit and drill to remove them. Your Light Shuttle is now ready to be moved into place and assembled.



Safety Tray

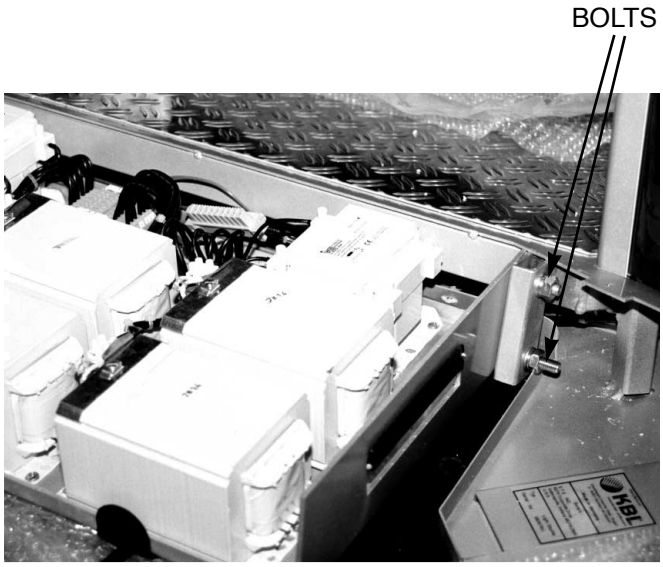


Seat Base

Assembly

As mentioned earlier, the Light Shuttle's base unit is heavy and requires four people to lift it from its crate bottom. Fortunately, once the base is put in place, assembly can be performed without moving it again. For this reason, plan where you want to put the unit before you begin assembly, referring to *Pre-Installation Considerations* for placement planning.

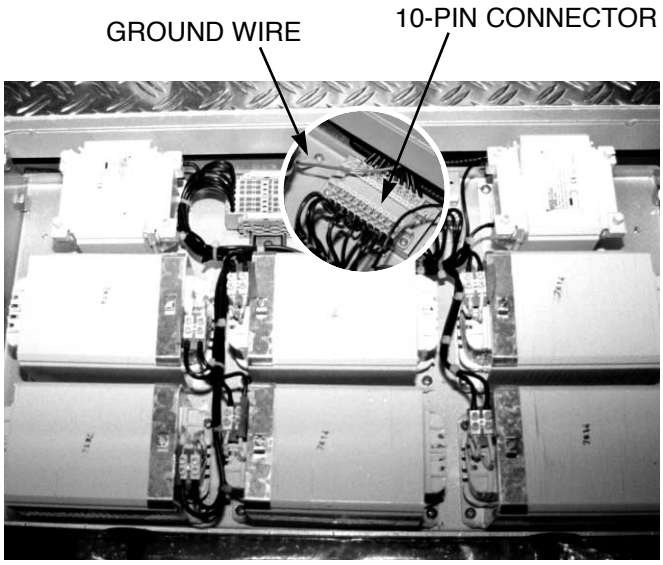
The ballast tray is attached to the base by four bolts, two each side (see picture at right). Remove these bolts and put the ballast tray where you want the Light Shuttle to sit. Position the tray no closer than 6″ from the wall and remember its orientation to the main unit.



Now lift the main unit from the skid and put it in place with respect to the ballast tray. There are two loose wire harnesses coming out from underneath the main base, one armored cable that will connect to the seat unit and one 10-pin connector that plugs into the ballast tray. Be careful not to damage these cables or get them caught beneath the unit.

Reattach the ballast tray to the base with the four bolts removed earlier. Remember, put the bolt through the hole and fasten it with one flat washer, one lock washer and the nut, in that order.

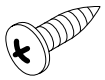
Plug the male 10-pin connector from the base unit into the female connector on the ballast tray, as shown at right. Connect the green grounding plug to the tab next to the 10-pin connector.



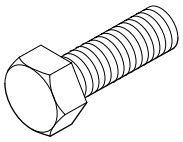
Fastener Inventory

Open the small packet wrapped in foam wrap. Inside this packet is a zip-close bag with a few bolts and washers, as well as some other important accessories. In addition to some touch-up paint you should have the following items:

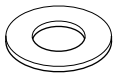
#8 x 1/2" Phillips Pan Head Screw
Quantity - 2



M8x20 Hex Head Bolt
Quantity - 2

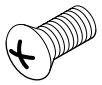


M8 Flat Washer
Quantity - 2

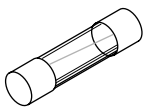


M8 Lock Washer
Quantity - 2

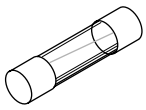
M6x12 Phillips Oval Countersunk Head
Machine Screw
Quantity - 8



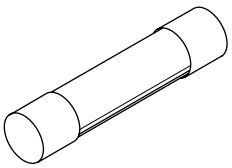
T 315mA 250V (5x20mm) European style fuse
[400mA 250V (5x20mm) time delay (Slo-Blo)
American style] Quantity - 2



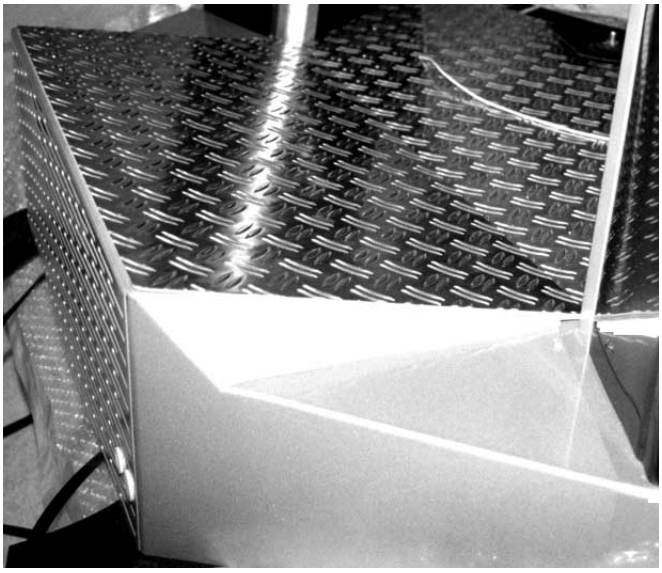
T 3.15A 250V (5x20mm) European style fuse
[4A 250V (5x20mm) time delay (Slo-Blo)
American style] Quantity - 2



T 5A 500V (1/4 x 1 1/4") European style fuse
[6A 500V (1/4 x 1 1/4") time delay (Slo-Blo)
American style] Quantity - 1

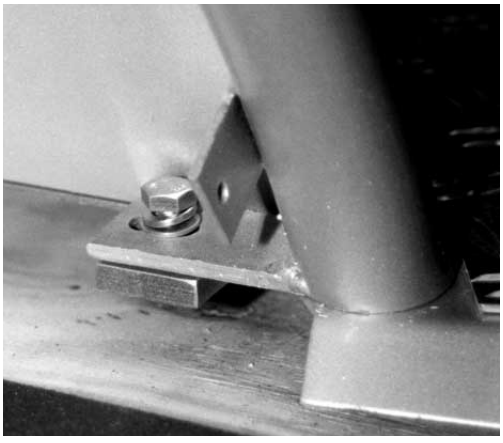


Install the ballast cover over the ballast tray with the two #8 x 1/2″ Phillips screws.

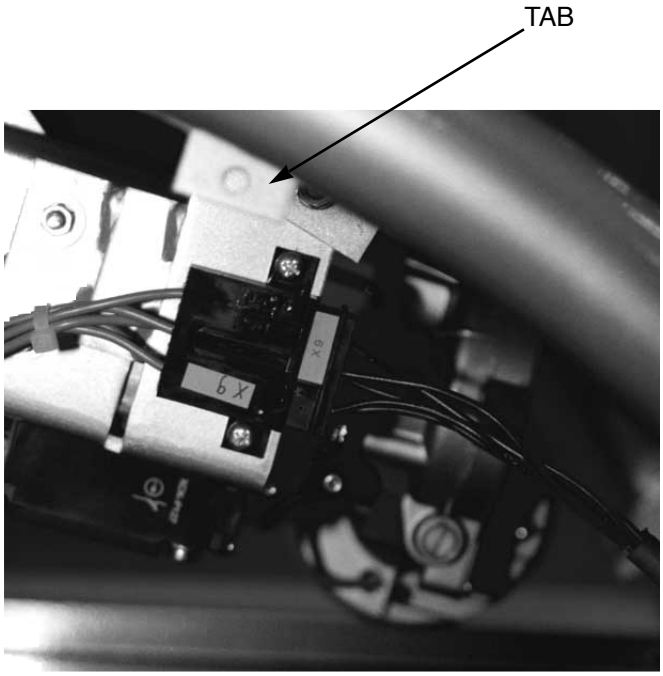


Now place the seat base into position as shown at right. There are two bolts coming up from the main unit base where the seat base will rest. These bolts will fit into the seat base's side tubes when the seat base is put in place.

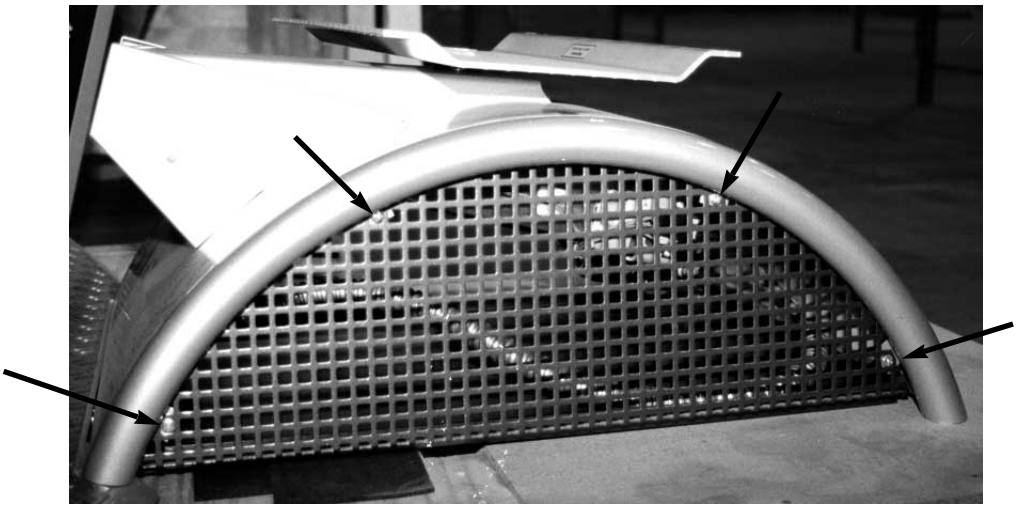
Underneath the front of the seat base are two metal tabs with holes in them which must line up with the metal tabs on the main unit base. This is where the two bases connect with the M8x20 Hex Head bolts. Put one lock washer and one flat washer (in that order) onto the bolt and fasten the seat base to the main base as shown.



An armored cable runs out from under the main base which connects to the seat base with a black connector labelled 'X9'. Plug the connector into its mating connector on the seat base where shown at right. Make sure the connection is secure. Place the safety tray under the seat base.



The base grills install on either side of the seat base to hide the electric motor which moves the seat forward and back. Install the grill, as shown, with the M6x12 Raised Countersunk Head Screws (indicated by arrows below) in the four metal tabs (see photo above). You may have to lift the grills slightly in order to put the screws through a full hole in the grill mesh pattern.



Unwrap the seat, if not already done. Turn it over and remove the four hex socket bolts and their associated lock washers, with a 6mm Allen (Hex) wrench.

Turn the seat back over and connect it to the seat bracket with the hex socket bolts and washers removed previously. Stickers are on the seat bracket to help with positioning.

Refer to the section on seat adjustment in *Operation* to position the chair.

Have an electrician connect the main power cord to a 208V AC 3-phase dedicated circuit as outlined in *Pre-Installation Considerations*.

Operation

Before You Tan

Before using your Light Shuttle, please note the following important precautions:

- This unit was designed for single person use. For this reason only one pair of protective eyewear is provided. However, all persons in the room must wear protective eyewear when the unit is in operation.

- Your skin should be free of cosmetics, tanning oils, or other body lotions prior to tanning except for those specifically made for use with tanning devices. However, do not remove natural body oils by bathing or showering immediately before tanning.

- Some medication may **increase your sensitivity** to ultraviolet light. It is recommended that you consult a physician before using this sunbed if taking any medication or if you suspect that your skin might be especially sensitive to sunlight. Included with this manual is an FDA booklet on medications that increase sensitivity to light.

- As with all electrical appliances, **do not operate this device near water or while you are wet.**

Exposure Times

Follow the tanning times in the exposure schedule below to determine the amount of time you should tan. This schedule is a recommendation for the duration of your tanning session according to your skin type. Untanned persons should not tan on consecutive days during their first week of tanning. Never tan more than once a day. Tanning normally appears after the first few sessions and maximizes after approximately four weeks. Tan once or twice per week thereafter to maintain appearance. Persons already having a base tan may begin at advanced levels corresponding to the extent of their base tan.

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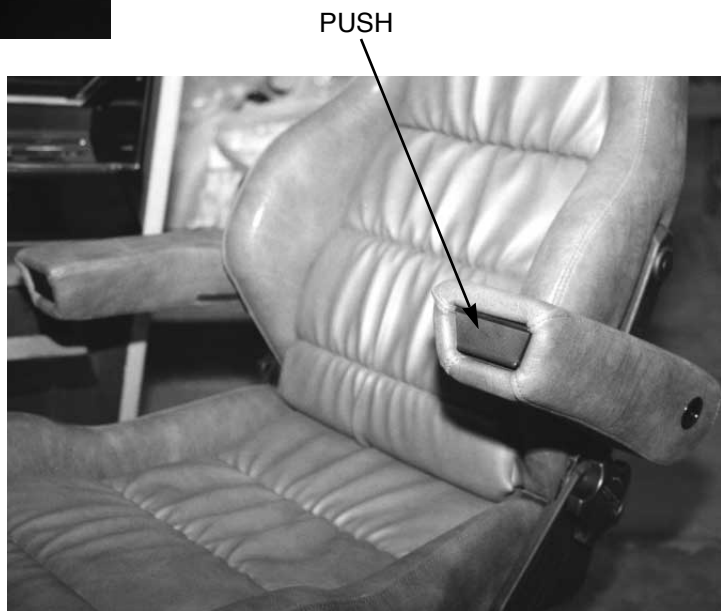
III	Normal	(Burns moderately and tans average.)	3	5	7	10	10
IV	Dark	(Burns minimally, tans easily and above average.)	4	6	8	10	10

Seat Adjustment

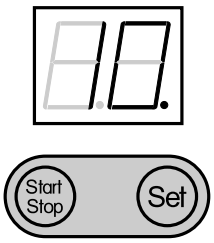
Adjust the seat back with the knob at the side of the seat, under the armrest.

The armrests have internal stops allowing them to be positioned at a comfortable level. Adjust the angle of the armrests by pushing the buttons at the end of the armrest.

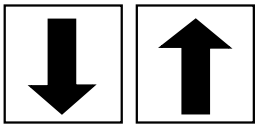


Using the Light Shuttle

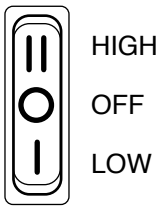
(If you plan to use a remote system with your Light Shuttle refer to the section on *Remote Operation* before using the unit.)



TIMER CONTROLS



SEAT CONTROL



COOLING FAN CONTROL

A **"Start/Stop" button** - *Starts session time and interrupts timer.*

B **"Set" button** - *Sets time of session. Timer display shows remaining time.*

C **Timer display** - *Shows remaining session time.*

D **Seat control** - *Moves the seat forward and back.*

E **Cooling Fan control** - *Controls the speed of the body cooling fan.*

1. Sit in the chair and face the tanners. Adjust the seat back and armrests as described earlier in the *Seat Adjustment* section. Put on protective eyewear.

2. Set the session time by pressing the **Set** button repeatedly until the desired time is displayed (refer to *Exposure Times*). Press the **Start/Stop** button. The lamps will turn on and the timer display will indicate the session time remaining.

3. With the unit running, you can move the seat forward or backward by pressing the up or down arrow button. Always maintain at least 10" between your face and the tanners.

4. When the timer reaches 0, the lamps will turn off and the seat will move backwards to its initial position. If you want to stop your session before time expires press the **Start/Stop** button. The timer will continue to count down with the lamps off. You may resume the session by pressing the button again.

5. The cooling fans run for about 3 minutes after the lamps shut off to aid in cooling the unit. The timer display will show ".." as a reminder

Remote Operation

Warning: The remote connection is designed to connect **only** to a T-Max® Manager or T-Max® 1A's. The connection cannot supply or accept high voltage, nor can it provide power to an external timer.

Looking at the face tanner side of the unit, the remote ports are located at the back of the base, to the right of the ballast tray.

T-Max® Manager remote system

The T-Max® Manager remote system offers the ultimate in tanning equipment control, while allowing the tanner easy straightforward operation. This system is ideal for multiple sunbed installations. To connect your Light Shuttle to this system follow the instructions that came with your remote system, noting *figure 2* on the next page. After you have set the address of each suntanning unit, simply connect the RJ-22 modular cable(s), described in the T-Max® Manager manual, directly into the port(s) located on the back of the Light Shuttle. You can place the Light Shuttle at any location in the series. Remember the last connection in the series requires a T-Max® terminator plug.

T-Max® 1A remote system

The T-Max® 1A offers the same control as the T-Max® Manager in single unit installations. For this, your remotely located 1A must be configured as a "master". If the remote 1A is not configured as a "master" it will not work in this application.

After you have set the address on the remotely located T-Max® 1A and the Light Shuttle simply connect the RJ-22 modular cables, described in the T-Max® user's guide, directly into either port located on the back of the Light Shuttle and either port on the back of the remotely located T-Max® 1A. If the T-Max® 1A and the Light Shuttle are more than 100 feet apart, terminators should be installed in the unused ports. See *figure 1*.

Setting the address

Before connecting your Light Shuttle to the T-Max® Manager or remotely located T-Max® 1A, the address of the Light Shuttle must be set. To do this...

1. Remove power from the Light Shuttle.
2. Press and hold the **Start**/**Stop** button on the Light Shuttle's T-Max® 1A.
3. Apply power to the Light Shuttle, while still holding the **Start**/**Stop** button.
4. The display should show "0.0" indicating an address of 00. Press and hold the **Set** button to count up to the desired address for the Light Shuttle (00-254). Set each T-Max® 1A to a unique address. The period between the numbers will flash to indicate an address over 100.

If you are using a remotely located T-Max® 1A as the remote system, set the Light Shuttle to "0.1". Refer to your T-Max® manual for more detailed instructions

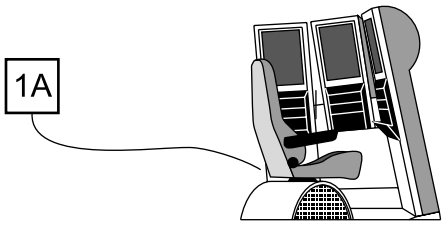


FIGURE 1

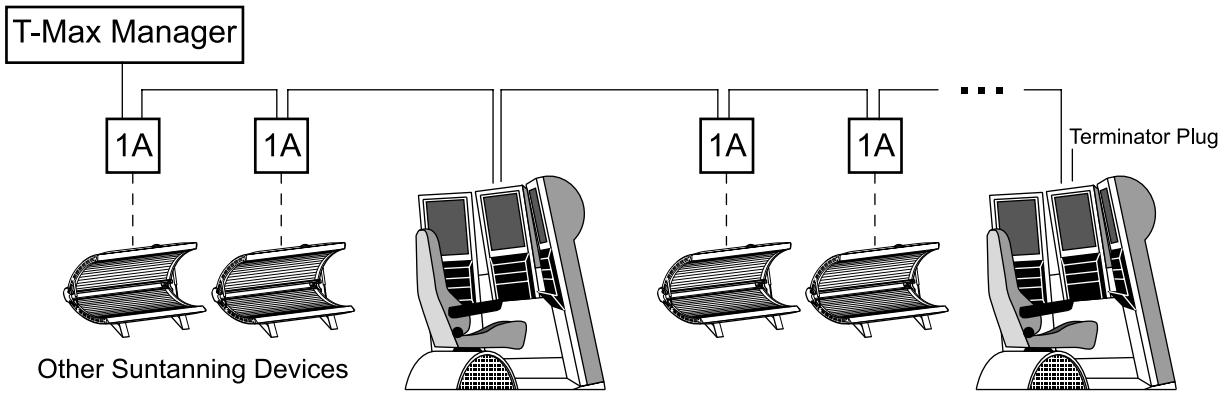


FIGURE 2

Care and Maintenance

Cleaning After Use

Clean and disinfect your tanning unit's hand tanner plates and seat after each use. For the hand tanner plates, use a non-abrasive disinfectant cleaner suitable for cleaning glass. Use a clean soft cloth moistened with the cleaner to wipe the hand tanning surfaces. We recommend *SunQuest*® disinfectant. To clean the seat, use a clean soft cloth moistened with water and a small amount of delicate fabric soap. NEVER SPRAY THE SEAT WITH ANY TYPE OF SOLVENT, GLASS CLEANER OR OTHER CAUSTIC CLEANING SOLUTION.

Thorough Periodic Cleaning

The cooling fans draw air through the unit and over time will cause a dust buildup on the unit's bulbs and filter glass. You will need to clean the interior of the unit, including vacuuming the fans, and wipe the bulbs and filter glass periodically to keep the Light Shuttle functioning optimally. It is recommended you clean the unit every 100 hours of operation or whenever you see dust accumulate inside the unit. Procedures for these operations are explained on the next few pages.

Mechanical Inspection

Your Light Shuttle has been built for years of service. To ensure trouble-free operation throughout its life, inspect the unit's mechanical integrity every 200 hours of use.

- Inspect the unit's fasteners verifying that all are firmly in place.
- Inspect the AC power cord and its connections.
- Inspect the filter glass. Broken, cracked or badly scratched glass should be immediately replaced.
- Verify that all moving parts operate smoothly, including the seat adjustment mechanisms and fans.
- Lubricate the drive spindle of the seat motor with copper paste if needed (whenever the tanning lamps are replaced is recommended).

CAUTION!

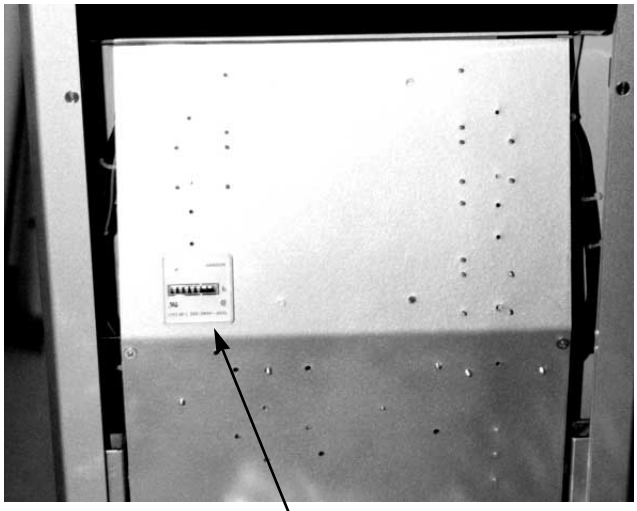
DISCONNECT POWER BEFORE ATTEMPTING TO CLEAN, RELAMP, OR ENGAGE IN THE MAINTENANCE OF THIS PRODUCT.

Lamp Removal

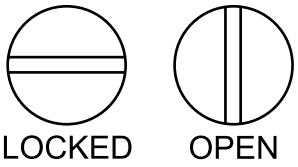
Your Light Shuttle utilizes five very powerful lamps. Over time, their power decreases and you will have to replace them. Recommended replacement time is every 500 hours of use. The unit is equipped with an hour counter to tell you how long the unit has been used.

The hour counter

Under the left hand tanner, at the base of the unit, is a removable panel. It is held in place by two turn latches. Use a flat bladed screwdriver to turn the latches 1/4 turn. The plate will then swing open from the top to reveal the hour counter. Simply replace the panel the same way you took it off and turn the latches 1/4 turn in the opposite direction to lock in place.

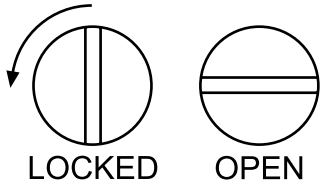


HOUR COUNTER



TURN LATCHES

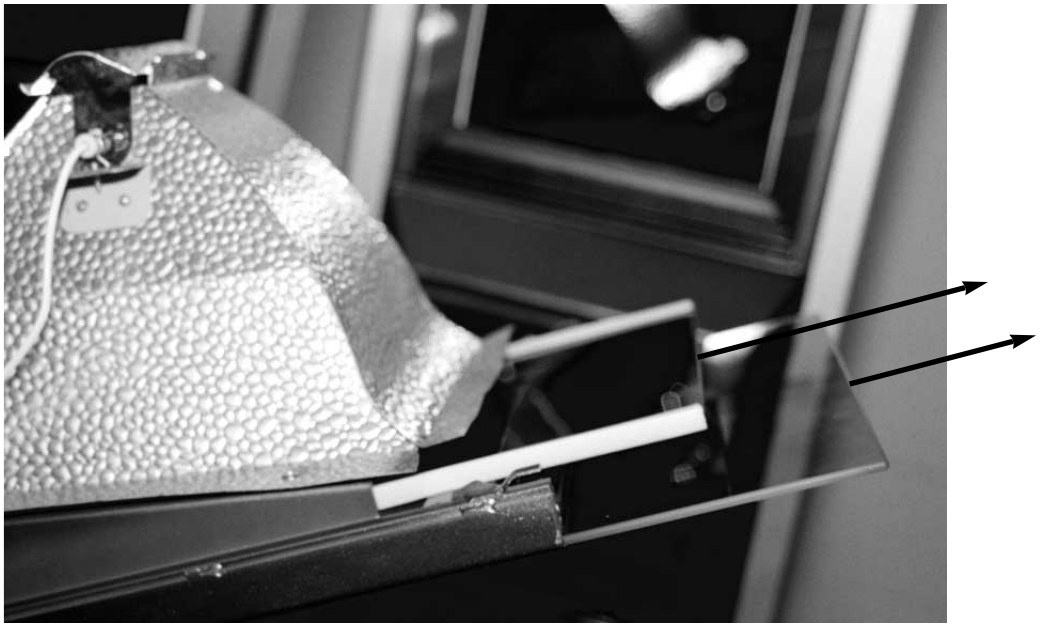
The face tanner glass



The face tanner panels are held in place with the same type of turn latch mentioned in *The hour counter*, although these latches do not have a stop to let you know they are locked in place. Turn the latches 90˚ to unlock the face tanner panel. It will swing open from the top. A chain holds the panel when open for ease of service. A safety hook is installed which limits the amount the panel will open. Simply unhook the chain from the safety hook to open the panel to the chain's full length as shown at right.

With the panel open you can slide both the clear safety glass and the blue filter glass out of their holder slots as shown below.

IMPORTANT: Inspect the safety glass and blue filter glass. Scratched or otherwise damaged glass should be replaced immediately with certified replacement glass. Contact your place of purchase. The light from the face tanner bulbs is intense enough to cause serious burns to the eyes and skin without proper filtering.



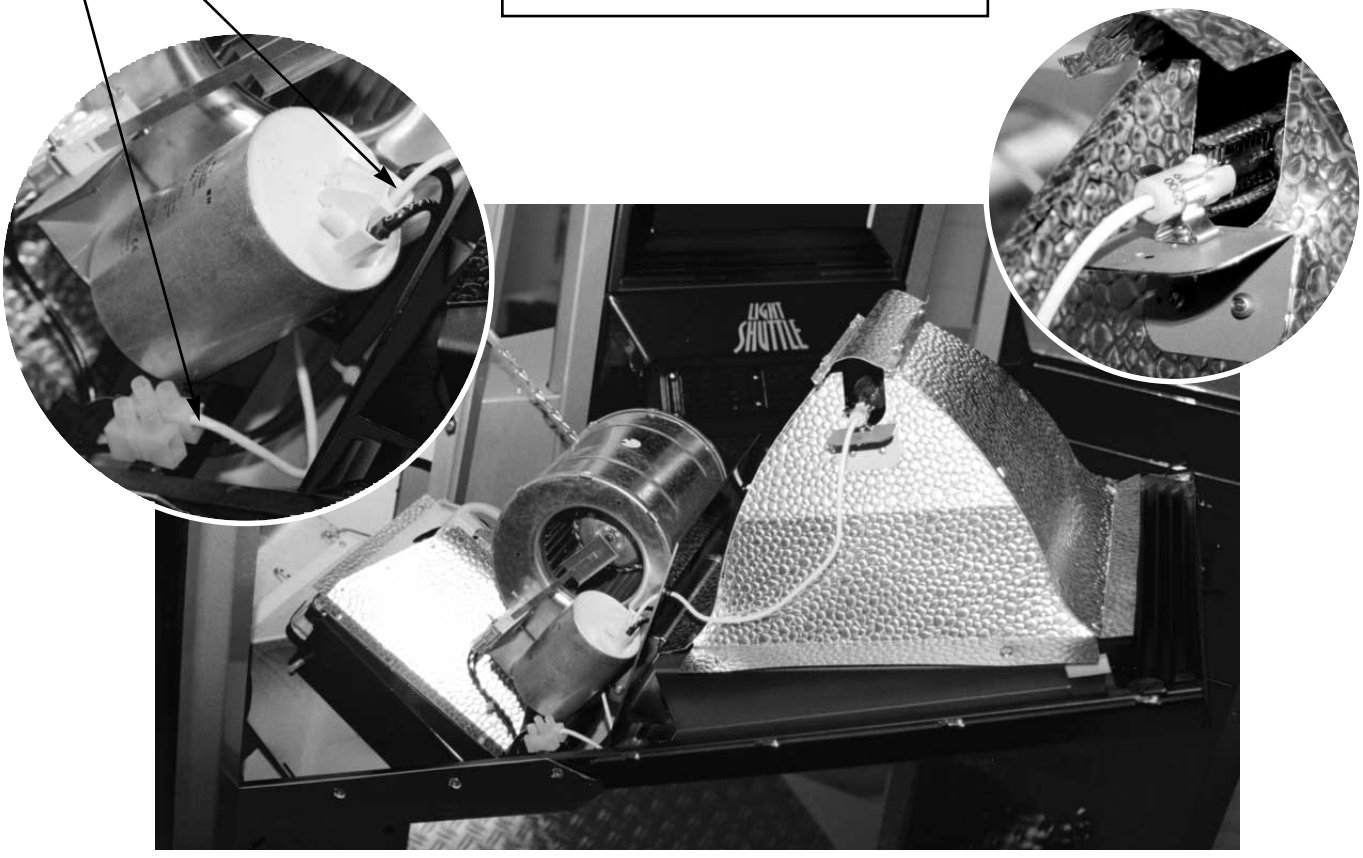
Face tanner lamp removal

With the face tanner panel open you can gain access to the tanning lamps. Follow the wires coming from the ends of a face tanner lamp to their connectors (left detail below). Use a small, flat bladed screwdriver to loosen the screw heads that hold the wires secure. Pull the wires loose.

Now remove the lamp from its holders (right detail below) and slide it out of the reflector. Replace the lamp by reversing the above directions, making sure the wire connections are secure and the small glass projection on the lamp points toward the reflector. Do not touch the lamp glass with your fingers as oils from your fingers will shorten the life of the lamp.

CAUTION!

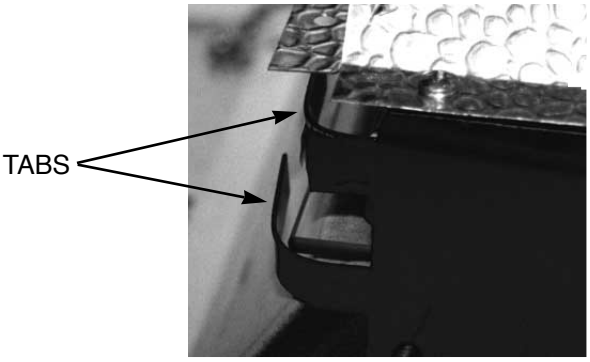
DISCONNECT POWER BEFORE ATTEMPTING TO CLEAN, RELAMP, OR ENGAGE IN THE MAINTENANCE OF THIS PRODUCT.



ONLY THE FOLLOWING LAMP TYPES HAVE BEEN CERTIFIED FOR USE IN THE Light Shuttle:

Facial Unit - KBL 2000 or HERAEUS Model BQ 2837 Z4
Hand Unit - KBL 400 or HERAEUS Model BQ 407 Z4

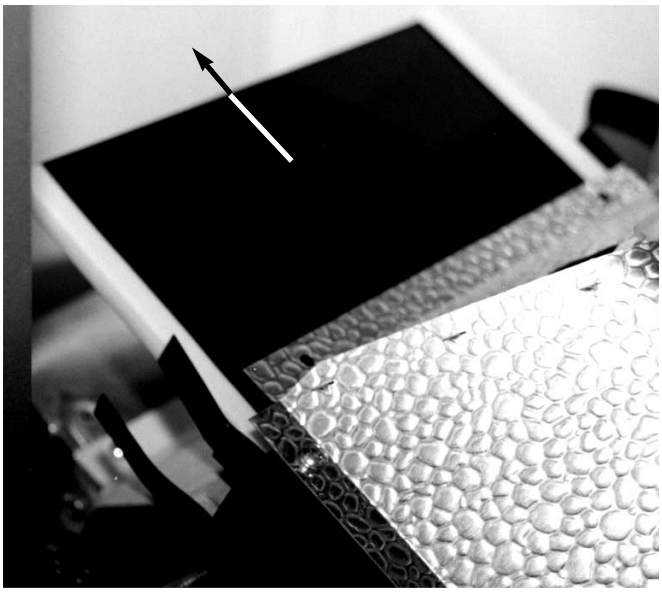
The hand tanner glass



The hand tanners, located below the face tanners in the face tanner panel, use the same type of safety and filter glass. The glass must be removed in order to gain access to the hand tanner lamps.

To remove the glass, bend the tabs out and slide the glass out of their holders, referring to the picture at right.

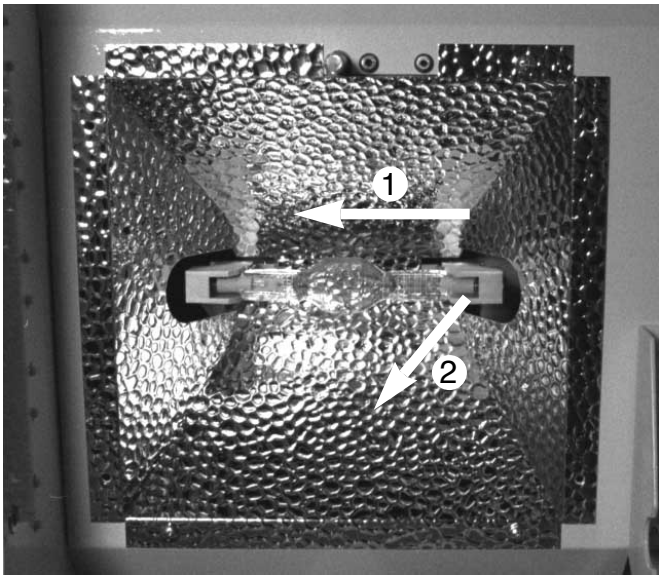
Reinstall the filter panes by reversing the above directions.



IMPORTANT: Inspect the safety glass and blue filter glass. Scratched or otherwise damaged glass should be replaced immediately with certified replacement glass. Contact your place of purchase. The light from the face tanner bulbs is intense enough to cause serious burns to the eyes and skin without proper filtering.

Hand tanner lamp removal

Hold the end of the hand tanner lamp with a soft cloth. Push the lamp to the left (1) and then pull the right end out (2) as shown in the picture to the right. Do not touch the lamp with your fingers as oils from your fingers will shorten the life of the lamp. You will notice that the contactors for the lamp socket are in the shape of a point. These points fit into the ends of the lamp. Be sure the lamp is seated properly when replacing. The small glass projection on the lamp should point toward the reflector when installed.



Troubleshooting

PROBLEM	SOLUTION
Unit will not turn on	• Make sure unit is properly connected to a power source. • Check source of AC power. Reset circuit breaker or replace fuse if necessary. • Make sure the remote control is operating properly.
Sunbed not tanning	• Clean unit, see *Thorough Periodic Cleaning*. • Ensure supply voltage is between 208 and 230V AC. • Replace lamps if lamp hours are greater than 500hrs.
One or more lamps fail to light	• Check if lamp is installed correctly. • Switch unlit lamp with a lamp that lights. If new lamp lights and old lamp still does not, replace old lamp.
Unit seems to be running but lamps fail to light or shut off unexpectedly	• Check for any obstructions to airflow around the unit. Blowers are equipped with airflow switches which shut off the lamps when airflow is obstructed. • Check airflow switches for proper operation.
Sunbed is too hot when operating	• Clean fans and remove any obstructions to all vent openings. • Room is too warm. Install additional cooling devices.
Seat not moving	• Unit must be turned on for seat to move. • Check electrical connection under seat base.

If you continue to have problems with your Light Shuttle, contact your customer service representative. We will be pleased to help you if you have any questions.

Limited Lifetime Warranty

ETS. Inc. warrants your tanning unit to be free of structural defects in its material and workmanship, under normal use, for its lifetime. **ETS. Inc.** will repair or replace, at their discretion, any defect to the structure which affects the performance of the unit.

For 6 months from the date of purchase, **ETS. Inc.** will provide replacements for parts that prove to be defective in material or workmanship. Labor will be covered for 30 days from purchase date. Normal wear, damage from misuse or abuse, damage incurred in transit, or damage done by unauthorized repairs or modifications are not covered by this warranty.

ETS, Inc. disclaims any implied warranty of merchantability or fitness for any period beyond the expressed warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

No one has authority to change or modify this Limited Lifetime Warranty in any respect. To obtain service under the Limited Lifetime Warranty, contact **ETS, Inc.** at 1-800-449-3605, and ask for the Technical Service Department.

ETS, Inc. SHALL NOT BE LIABLE FOR LOSS OF USE, LOSS OF TIME , INCONVENIENCE, RENTAL OR SUBSTITUTE PRODUCTS, LOSS OF BUSINESS, LOSS OF INCOME, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

All warranty service must be performed by an authorized service person. If your tanning unit must be returned for service, all freight charges must be at your expense. Contact your place of purchase for the address of the nearest service center. Proof of purchase is required to obtain warranty service.

This warranty covers the original purchaser only. This warranty is void if the unit is modified in any manner from its original design.

CALL FOR SERVICE OR QUESTIONS:
1•800•449•3605

6270 Corporate Drive
Indianapolis, IN 46278-2900

Record this information for ease of service

Date of Purchase _____

Serial Number _____